

Examples of EPA approved narrative flow criteria language in state water quality standards

Eleven states have hydrologic (i.e., flow) criteria in their WQS: New Hampshire, Rhode Island, Vermont, New York, Virginia, Kentucky, Tennessee, Louisiana, Missouri, and Oregon, while one of California's Water Boards (State Water Resources Control Board) has included various flow-related provisions (specifically flow rate) in its WQS (termed "Water Quality Objectives" within Water Quality Control Plans).

State/Tribe	Narrative Language in Flow Criteria
New Hampshire	<p>"surface water quantity shall be maintained at levels adequate to protect existing and designated uses"</p> <p>http://water.epa.gov/scitech/swguidance/standards/upload/2003_11_21_standards_wqslibrary_nh_nh_1_chapter1700.pdf page 8.</p>
Rhode Island	<p>"quantity for protection of... fish and wildlife...adequate to protect designated uses" could not find this phrase ...</p> <p>"For activities that will likely cause or contribute to flow alterations, streamflow conditions must be adequate to support existing and designated uses." (page 14)</p> <p>http://water.epa.gov/scitech/swguidance/standards/wqslibrary/upload/riwqs.pdf</p>
Vermont	<p>Class A(1)- Changes from natural flow regime shall not cause the natural flow regime to be diminished, in aggregate, by more than 5% 7Q10 at any time; (p. 24)</p> <p>Class B WMT 1 Waters - Changes from the natural flow regime, in aggregate, shall not result in natural flows being diminished by more than a minimal amount provided that all uses are fully supported; and when flows are equal to or less than 7Q10, by not more than 5% of 7Q10. (p. 25)</p> <p>Class A(2) Waters and Class B Waters other than WMT1 - Any change from the natural flow regime shall provide for maintenance of flow characteristics that ensure the full support of uses and comply with the applicable water quality criteria. (p. 25)</p> <p>http://water.epa.gov/scitech/swguidance/standards/wqslibrary/upload/vtwqs.pdf</p>
New York	<p>For both Class N fresh surface waters and Class AA(S) fresh surface waters ...</p> <p>"There shall be no alteration to flow that will impair the waters for their best usages." (p. 13 – you have to count them, they are not numbered)</p> <p>http://water.epa.gov/scitech/swguidance/standards/upload/2008_10_17_standards_wqslibrary_ny_ny_2_water_quality_reg.pdf</p>
Virginia	<p>"Man-made alterations in stream flow shall not contravene designated uses including protection of the propagation and growth of aquatic life."</p>
Kentucky	<p>"Aquatic Life. (1) Warm water aquatic habitat. The following parameters and associated criteria shall apply for the protection of productive warm water aquatic communities, fowl, animal wildlife, arboreous growth, agricultural, and industrial uses:...(c) Flow shall not be altered to a degree which will</p>

	adversely affect the aquatic community .”
Tennessee	<p>Criteria for Water Uses</p> <p>“(3) Fish and Aquatic Life (n) Habitat- The quality of stream habitat shall provide for the development of a diverse aquatic community that meets regionally-based biological integrity goals. Types of habitat loss include, but are not limited to: channel and substrate alterations... stream flow changes.... For wadeable streams, the instream habitat within each subecoregion shall be generally similar to that found at reference streams. However, streams shall not be assessed as impacted by habitat loss if it has been demonstrated that the biological integrity goal has been met. (o) Flow- Stream or other waterbody flows shall support the fish and aquatic life criteria.”</p> <p>“(4) Recreational. (m) Flow- Stream flows shall support recreational uses.”</p>
Missouri	“Waters shall be free from physical, chemical, or hydrologic changes that would impair the natural biological community.”
Seminole Tribe of FL	“Class 2-A waters shall be free from activities...that ...Impair the biological community as it naturally occurs... due to ... hydrologic changes ”
Mole Lake Band of the Lake Superior Tribe of Chippewa Indians	“prohibited...human induced changes to ... area hydrology that alter natural ambient conditions ...such as... flow , stage.... Natural daily fluctuations of flow , stage... shall be maintained.”
Bad River Band of the Lake Superior Tribe of Chippewa Indians	<p>“Water quantity and quality that may limit the growth and propagation of, or otherwise cause or contribute to an adverse effect to wild rice, wildlife, and other flora and fauna of cultural importance to the Tribe shall be prohibited.</p> <p>“Natural hydrological conditions supportive of the natural biological community, including all flora and fauna, and physical characteristics naturally present in the waterbody shall be protected to prevent any adverse effects.”</p> <p>“Pollutants or human-induced changes to waters, the sediments of waters, or area hydrology that results in changes to the natural biological communities and wildlife habitat shall be prohibited. The migration of fish and other aquatic biota normally present shall not be hindered. Natural daily and seasonal fluctuations of flow (including naturally occurring seiche), level, stage, dissolved oxygen, pH, and temperature shall be maintained.”</p>

See EPA website for full text of specific criteria:

<http://water.epa.gov/scitech/swguidance/standards/wqslibrary/index.cfm>